

From: no-reply@mbie.govt.nz
To: [Research, Science and Innovation Strategy Secretariat](#)
Subject: Late submission on draft RSI strategy
Date: Sunday, 24 November 2019 11:49:37 p.m.
Attachments: [Online-submission-form-uploadsdraft-research-science-and-innovation-strategy-submissionsNPM_RSI-Strategy-Submission_Final.pdf](#)

Are you making your submission as an individual, or on behalf of an organisation?

Organisation

Name

Professor Jacinta Ruru

Name of organisation or institutional affiliation

Nga Pae o te Maramatanga

Role within organisation

Co-Director

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**Which of the below areas do you feel represents your perspective as a submitter?
(Please select all that apply)**

Researcher

If you selected other, please specify here:

Gender

Female

Ethnicity

Maori

Name of organisation on whose behalf you are submitting, if different to the organisation named above

In which sector does your organisation operate: (Please select all that apply)

Research

If you selected other, please specify here:

How large is your organisation (in number of full-time-equivalent employees)?

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Research, Science and Innovation Strategy Submission form

22 November 2019

- 1 This submission on the Draft Research, Science and Innovation Strategy (the Strategy) is made by Ngā Pae o te Māramatanga.
- 2 Ngā Pae o te Māramatanga (NPM) is New Zealand's Māori Centre of Research Excellence (CoRE). Established in 2002, NPM is hosted at Waipapa Marae at the University of Auckland, comprising 21 research partners and conducting Māori-led research of relevance to Māori communities. www.maramatanga.ac.nz
- 3 NPM's research programme is world-leading and award-winning. NPM research makes positive transformations for Indigenous nations and communities, to overturn colonial paradigms of thinking and working, and to create new spaces for Indigenous knowledges, cultures and peoples to thrive. In the absence of the infrastructure that long established disciplines such as physics, history or botany enjoy, NPM research and researchers have had to create the tertiary lexicon and literature for base theories and methods to realise successful community partnered research. NPM has developed and implemented new processes and structures to support Indigenous community co-created research in an adverse tertiary environment. In building this infrastructure, NPM has helped enable the formation of a new scholarly community as well as national and international confidence in Indigenous-led research. Laying this groundwork has required: the rapid increase of the number of Māori researchers that could design and lead critical research projects; the extension of the breadth and significance of Kaupapa Māori research; the development of transdisciplinary research methods and theories to respond to national and community need; and, the creation of appropriate and multiple outlets for the research.
- 4 Mātauranga Māori is embedded within NPM's research programme because we know that many solutions for transformative societal change lie within the knowledge systems and practices of our ancestors, and because mātauranga provides us with a means to study the universe from a Māori worldview. By valuing mātauranga Māori, te reo me ngā tikanga Māori, NPM's research programme uses dual knowledge systems (Indigenous and discrete disciplinary knowledge) and is a leader in Māori research design, outputs and impact.
- 5 This submission has been prepared by the NPM senior leadership team including Co-Directors Professor Jacinta Ruru FRSNZ and Professor Linda Waimarie Nikora FRSNZ, with significant input from Professor Tahu Kukutai.

- 6 Further discussion and clarification on issues raised in this submission is welcome, and contact can be made through:
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Email: Jacinta.ruru@otago.ac.nz
Phone: 03 4798833
- 7 A copy of this submission will be made available for NPM researchers and partners to read.

Overview of our key recommendations

- 8 NPM welcomes the clear intent of MBIE to do more work to “support and protect Mātauranga Māori while acting appropriately within the framework of the Treaty of Waitangi” (p. 27).
- 9 NPM recommends that the Strategy clearly articulates an urgent intent to develop with Māori a Tiriti o Waitangi / Treaty of Waitangi framework for the RSI sector. This framework will require a significant decolonisation of existing research infrastructure, including a clear commitment for Government to partner in new ways with Iwi and hapū, and Māori entities. These partnerships should value the rangatiratanga (self-determination) of Iwi, hapū and whānau and result in a significantly increased investment in Mātauranga Māori research. It is essential that Te Tiriti is centred within our RSI system and Strategy, particularly if MBIE wishes to be seen as a credible system leader and influencer in Te Ao Māori.
- 10 NPM recommends that the Strategy recognise the United Nations’ Declaration on the Rights of Indigenous Peoples (UNDRIP) as a further essential framework for accelerating Aotearoa New Zealand towards meeting its obligations under te Tiriti o Waitangi.
- 11 NPM recommends that the Strategy make it a priority for Aotearoa New Zealand’s research sector to address the acute problem of a stagnant Māori tertiary research workforce. Accelerated Māori capacity and leadership across the science and research sector is essential for addressing national challenges. One significant barrier is that tertiary and Crown research institutions have been slow to capitalise on the now sizeable group of outstanding Māori PhD graduates to grow the Māori tertiary/Crown research workforce. Institutions have failed spectacularly in their responsibility to employ Māori in any sizable number and this situation has remained static for more than a decade. While government strategies attempt to address this with expectations for recruitment and additional funding for Māori, research degree completions and the Vision Mātauranga policy, the returns are yet to be realised. With a stagnant national Māori tertiary workforce at about 5% and many Māori isolated as the only Māori academic in their departments/units, NPM urges the Strategy to prioritise action. Solutions are complex and will not be solved simply by Māori gaining more qualifications.
- 12 NPM endorses the recommendation put to the recent Māori STEAM hui (Waipapa Marae, 19th November 2019) for MBIE to establish a dedicated Māori STEAM agency so that the Crown is able to regularly report on Māori STEAM outcomes within the RSI system, and to take a whole of government approach to creating a

coherent, connected, Māori-led approach to building Māori leadership and success in STEAM.

- 13 NPM welcomes the opportunity to discuss the possibilities for a te Tiriti and UNDRIP compliant Strategy for Aotearoa New Zealand, now and at any point in the future.

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Contribution of Research, Science and Innovation

This strategy is about New Zealand's Research, Science and Innovation (RSI) at a high-level. Its aim is to identify challenges and opportunities that will have the broadest impact on our research and innovation activities. For this reason, it mentions few specific areas or sectors of research and innovation. For this draft version of the Strategy, we are keen to hear from researchers, innovators, businesses, and providers of public services on what the RSI system could be doing to accelerate progress on Government's priorities.

Where can the RSI system make the greatest contribution towards the transition to a clean, green, carbon-neutral New Zealand?

Where else do you see it making a major contribution?

What else could the RSI system be doing to accelerate

Please type your submission below. If applicable, please indicate the question(s) to which you are responding.

Q1. We see much promise in the shift to focus the RSI system more intentionally on addressing issues that are crucial for securing Aotearoa New Zealand's future wellbeing, such as the transition to a low emissions economy. Doing research that actively contributes to the wellbeing of our whānau, our communities, and our whenua has always been at the heart of how we operate as a kaupapa Māori national Centre of Research Excellence.

We would be remiss if we did not point out that the research system is failing to realise the potential of mātauranga solutions to the massive environmental challenges that we collectively face. With some rare exceptions, the current business as usual approach is to 'tack on' mātauranga to research that is conceptualised, executed and implemented within the frame of western science. This must change if we are serious about responding to pressing issues with a joined up approach that draws from all of our multiple rich knowledge systems. As Treaty partners, and as kaitiaki with intergenerational responsibilities to manaaki our whenua and waterways, Māori communities, researchers and decision-makers need to be front and centre of knowledge-based solutions to climate change mitigation. This includes the transition towards a clean, green, carbon-neutral Aotearoa.

Q2. A vibrant and well-functioning RSI system is crucial for any nation's capacity to positively impact the wellbeing of its people, regardless of how wellbeing is conceptualised and measured. It is particularly important that investment in RSI delivers positive impacts for the communities and peoples that need it most. The existing system has largely failed to deliver for Māori who remain disproportionately disadvantaged on most, if not all, conventional indicators of economic wellbeing and health. Addressing systemic inequities is an area where the RSI sector can and should make a major contribution. However to do so successfully will require an enabling environment for Māori-led research and solutions, as we recommend here.

Q3. There are gaps in the RSI system that currently impede acceleration of progress towards the Government's priorities. These gaps include: a properly resourced, dedicated mechanism that supports and enables Māori-led research and innovation; a failure to connect with the Māori Economy in a systematic and intentional way, especially those already working at scale and with demonstrated success; limited access to venture capital at scale; accountability mechanisms which require MBIE to report on how the investment it receives and distributes is delivering impacts for Māori as Treaty partners, as well as for key stakeholders and policy relevant population groups.

Researching and innovating towards the frontier

Question 4: Do you agree that the RSI Strategy should be focused on innovation at the “frontier” (creating new knowledge) rather than behind the frontier (using existing knowledge to improve the ways we do things)?

Question 5: In which research and innovation areas does New Zealand have an ability to solve problems that nobody else in the world has solved? Why?

Question 6: In which areas does New Zealand have a unique opportunity to become a world leader? Why?

Question 7: What do you consider to be the unique opportunities or advantages available to the RSI system in

Please type your submission below. If applicable, please indicate the question(s) to which you are responding.

Q4. We find the language of ‘frontier’ and ‘behind the frontier’ inappropriate to describe innovation in a colonial society. Language matters and, in this instance, the repeated emphasis on the ‘frontier’, which is conceptually entangled (at one level) with colonisation, does not sit well with us. Also, at times it appears as if ‘frontier’ and ‘behind the frontier’ are simply synonyms for curiosity-driven/basic research and applied research, even if this is not the intent.

We agree that the RSI Strategy should support the creation of new knowledge but are concerned about how value judgments will circumscribe what constitutes ‘new’ and/or ‘valuable’ knowledge in narrow and unhelpful ways. The existing system is structured to systematically diminish the rich contributions that mātauranga Māori, Māori researchers and the Māori economy can and should make to innovation in Aotearoa. Mātauranga Māori is inherently dynamic and fluid, but is often mis-characterised by others as knowledge that exists in the past.

Beyond that, we think it potentially misplaced to focus on the creation of new knowledge at the expense of leveraging existing knowledge to improve the way we do things. In reality the border is more blurred than stark. Many of the significant challenges that disproportionately (and avoidably) impact Te Ao Māori are well known to us – new knowledge creation is not the problem; the problem is a system that functions to exclude us from leading and implementing solutions that draw on our own distinctive knowledge systems and approaches.

Q5 - 7. One of the genuinely distinctive advantages that Aotearoa has, and one where we are world leading, is in the field of Indigenous research. Māori research excellence and impact is widely recognised internationally, with particular strengths in Indigenous research methodologies, Indigenous knowledge systems, Indigenous environmental research, Indigenous pedagogy, Indigenous psychology, Indigenous language revitalisation,

Indigenous law, Indigenous epidemiology and demography, and Indigenous data sovereignty. NPM has played a crucial role in building Māori research capacity and capability in these areas, supporting more than 500 Māori PhD completions since 2002. We have the depth and breadth of experience and expertise that enables us to assemble large multidisciplinary cross-institutional research programmes and projects that are Māori led, Māori designed for impact, and connected to our whānau, hapū and iwi.

Many of our researchers are able to draw on diverse knowledges, including both mātauranga Māori and deep disciplinary western knowledge, and are conversant in te reo Māori and tikanga Māori. This unique ability to think in adaptive ways, and to connect to multiple communities, is desperately needed to solve major challenges facing Aotearoa New Zealand, and indeed the world, but is still largely invisible in the RSI system. The loss of potential gain, because of the way the existing system is structured, represents a major opportunity cost to the system, to the country, and to the wellbeing of Māori and other New Zealanders.

Our key challenge – Connectivity

Question 10: Do you agree that a key challenge for the RSI system is enabling stronger connections? Why or

Please type your submission below.

Q10. From our vantage point, developing and sustaining strong connections is not a key challenge for Māori researchers. We excel at establishing and nurturing relationships: between ourselves as researchers; with the communities that we serve (and often have a whakapapa connection and thus obligations to); and with other Indigenous researchers around the world. Our connections to communities are foundational to the way that we do research; indeed, we have been modelling best practice in community-centred, co-designed and co-produced research for the best part of two decades. NPM has enabled more than 160 community partnered research projects. Many of these continue to live on and deliver impactful outcomes for Māori communities.

We have been able to achieve a very high level of domestic and international connectivity because of the importance that we place on relationships, not because of the way in which the RSI system is structured. That is, we have succeeded in spite of the system, not because of it.

In so doing we have learnt that: 1) Building and sustaining relationships takes time and trust - there are no shortcuts, and mutually beneficial relationships should last far beyond the timeframe of a single research project; 2) the resources that enable connections to be nurtured or sustained are not usually available through traditional project funding; 3) power sharing with communities requires a dedicated mechanism for community capacity building - this needs to be seen as part of good research practice, not an optional 'add on'.

We note that, in seeking to measure connectivity, international co-authorship in international journals is an inadequate proxy. It is more a measure of individual collaboration - which is useful perhaps for PBRF purposes - but not a basis on which to assess and support connectedness between and with institutions, networks and communities.

Guiding Policy – Excellence

Question 11: Do you agree with the definition of excellence presented here as the best thing possible in its context? Why or why not?

Question 12: How can we achieve diversity within our research workforce? What are the current barriers preventing a diverse range of talent from thriving in the RSI system?

Question 13: Do you agree that excellence must be

Please type your submission below. If applicable, please indicate the question(s) to which you are responding.

Q11. We welcome a broad definition of research excellence, and emphasise that such a definition must inherently accept that world class research can be conducted entirely using theories, methods and innovation created in Aotearoa New Zealand. For example, NPM has demonstrated global leadership in creating new research spaces that adhere to Māori values, produces research that fulfils mainstream standards of excellence and meets the requirements of excellence demanded by our Māori communities.

It would be useful for the Guiding Policy to be inclusive of NPM's on-the-ground experience of excellence. NPM is a unique CoRE committed to maximising the value, impact and reach of Māori research excellence. We seek to clearly connect research and educational excellence by bringing together outstanding research teams to produce research that is responsive to the aspirations of Māori communities and actively builds the next generation of innovative Indigenous researchers. Māori research excellence is multifaceted and must be seen to be excellent by multiple, often disparate, audiences. NPM is an important vehicle by which Aotearoa New Zealand continues to be a key player in global Indigenous research and Indigenous issues. Our Māori-centred multidisciplinary research fosters a culture of community-based, national and international research excellence.

We agree that the system should improve opportunities for Māori to participate and lead in RSI. To do so, it is important to embrace a te Tiriti o Waitangi framework to provide the enabling environment for Māori-led research.

We are cautious of the excellence definition emphasising number of citations as a determining factor (and the correlated emphasis on multi-authored publications).

Q12. We encourage the Strategy to broaden the noted barriers for 'poor' Māori participation in RSI activities. The examples provided in the Strategy are unduly focused on a perception of what Māori are not doing.

However, it is a prevalent view within Māori research networks that one of the significant barriers is institutional racism in the RSI system.

For example, tertiary and Crown research institutions have been slow to capitalise on the now sizeable group of outstanding Māori PhD graduates to grow the Māori tertiary/Crown research workforce. Institutions have failed spectacularly in their responsibility to employ Māori in any sizable number and this situation has remained static for more than a decade.

While government strategies attempt to address this with expectations for recruitment and additional funding for Māori, research degree completions and the Vision Mātauranga policy, the returns are yet to be realised. With a stagnant national Māori tertiary workforce at about 5% and many Māori isolated as the only Māori academic in their departments or units, often to their detriment, NPM urges the Strategy to prioritise action. Solutions are complex and will not be solved simply through Māori gaining more qualifications.

NPM welcomes the clear intent of MBIE to do more work to “support and protect Mātauranga Māori while acting appropriately within the framework of the Treaty of Waitangi” (p. 27).

NPM recommends that the Strategy clearly articulates an urgent intent to develop with Māori a Tiriti o Waitangi / Treaty of Waitangi framework for the RSI sector. This framework will require a significant decolonisation of existing research infrastructure, including a clear commitment for Government to partner in new ways with Iwi and hapū, and Māori entities. These partnerships should value the rangatiratanga (self-determination) of Iwi, hapū and whānau and result in significant investment in Mātauranga Māori research. It is essential that Te Tiriti is centred within our RSI system and Strategy, particularly if MBIE wishes to be seen as a credible system leader and influencer in Te Ao Māori.

NPM recommends that the Strategy recognise the United Nations’ Declaration on the Rights of Indigenous Peoples (UNDRIP) as a further essential framework for accelerating Aotearoa New Zealand towards meeting its obligations under te Tiriti o Waitangi.

NPM has extensive experience in contributing towards achieving diversity in the research sector. We welcome strategic conversations with MBIE to advance diversity further.

In brief, in 2002 there were probably fewer than a dozen Māori researchers who were Principal Investigators in their own right in nationally contested, externally funded research. Confounding the problem was that many Māori researchers were locked into perennial Associate Investigator positions which stifled their ability to build and lead comprehensive and cohesive research programmes even while their research contributions added real, often critical, value to the projects. While it did mean that many Māori researchers had the opportunity to gain real breadth of experience, it was mainly in service to mainstream research and supporting non-Māori research careers and aspirations. Seventeen years later (2002 – 2019), it is now commonplace for Māori led teams to have designed and implemented every part of the design process drawing on mātauranga Māori, kaupapa Māori and other Indigenous research methodologies. Māori researchers have always served Māori communities but NPM has further strengthened their ability to determine the research questions as the fundamental core of a research project.

One significant way to resoundingly support the growing diversity of the research workforce is to invest in the Māori-led national network of Māori post-graduate students throughout New Zealand: MAI Te Kupenga (MAI TK) . MAI TK is a proven legacy professional network.

Scale up – Choosing our areas of focus

For this draft iteration of the strategy, **we seek input on the selection of possible areas of focus**. We will consider establishing around five focus areas, but, depending on the eventual selection, are likely to introduce them over time, rather than immediately. In addition to the criteria set out in the Strategy document, we invite stakeholders to consider the following factors in their suggestions –

The ambition of this strategy to focus efforts in the RSI portfolio at the global frontier of knowledge and innovation.

Ways in which the RSI system can accelerate progress on the government’s goals.

The focus areas already determined by *From the Knowledge Wave to the Digital Age*.

Work already underway where we are already seeking to build depth and scale in the RSI system.

The following areas could be a useful start, and are highlighted in *From the Knowledge Wave to the Digital Age*:

Aerospace, including both autonomous vehicles and our growing space industry.

Renewable energy, building on recent investments in the Advanced Energy Technology Platform.

Health technologies to improve delivery of health services and explore opportunities in digital data-driven social and health research.

We invite comment on these suggestions and welcome input on other possible focus areas.

Please type your submission below.

Given the dynamic nature of political cycles, we feel that it would be unduly limiting to focus the Strategy around five key focus areas, even with the intention of a staged rollout. Our preference would be for a smaller set of focus areas which meet the priorities of Government, Māori and key stakeholders, which are oriented towards a longer-term horizon and transformative impact, and which are conceived through a wide lens. This would still allow for other areas of strength to emerge and be supported.

Our very strong (and considered) view is that one of these focus areas **MUST** speak unequivocally and specifically to the priorities of Te Ao Māori. There are a number of potential such focus areas, and the selection of one is best arrived at through a process of partnership-based dialogue and consensus building.

For NPM, an obvious one is the future of Māori and Pasifika work and innovation. This focus area aligns with Māori, Government and stakeholder priorities; is crucial for realising the potential of the so-called Māori (and Pasifika) ‘demographic dividend’; leverages technological and digital innovation; is clearly connected to the growing demand to accelerate Māori leadership and participation in STEAM; addresses systemic inequities; and is directly relevant for the overarching goal of having a RSI sector that enhances the wellbeing of all New Zealanders.

Actions – Towards an Extended Vision Mātauranga

This section of the draft Strategy signals our intention to consult and collaborate further with Māori stakeholders to co-design our responses and initiatives. From that perspective, we consider the signals in the draft Strategy to be a start, rather than a set of final decisions. Nonetheless, we are keen on initial feedback in the following areas.

Question 34: Does our suggested approach to extending Vision Mātauranga focus in the right five areas? If not, where should it focus?

Question 35: How can we ensure the RSI system is

Please type your submission below. If applicable please indicate the question(s) to which you are responding.

With regards to Vision Mātauranga, we endorse the points and suggestions made in the submission from Science for Technological Innovation National Science Challenge, which captures many of the excellent points made at a recent hui on Māori leadership and Vision Mātauranga hosted by Te Rauika Māngai.

NPM also supports the process proposed by MBIE which is to co-design, with Māori, a fit-for-purpose VM as part of a refreshed RSI system. Our expectation is that this would be done under the auspices of a Te Tiriti framework; consultation is not adequate for such an approach.

We are also concerned (and have been for some time) about the way in which the existing contestable funding mechanisms marginalise Māori-led research and incentivise perverse behaviours such as cherry picking Māori researchers as late 'additions' to projects. There appears to be a range of forces at play that make it extremely difficult for excellent and innovative Māori-led research to get funded, including the inadequate involvement of assessors who can robustly assess mātauranga research. Without wishing to pre-empt the co-design process, we note that accelerating VM is likely to require a significant dedicated Māori contestable funding mechanism in the RSI sector, supported by a level of investment that is consistent with partnership under a Te Tiriti framework. Such a funding mechanism would need to be open and inclusive, as part of an enabling infrastructure that supports Māori researchers at all career stages, and their community partners, to co-design and lead research.

Actions – General

Question 42: How should the Government prioritise the areas of action, and the initiatives proposed under each

Please type your submission below.

We reiterate our call for a te Tiriti based approach.

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General

Question 43: Do you have any other comments on the Strategy which have not yet been addressed?

Please type your submission below.

We think the 'stretch' goal of being a global innovation hub by 2027' is somewhat unrealistic – even allowing for the somewhat aspirational nature of 'stretch'. There are well documented structural features such as our size, our distance from existing innovation hubs which curbs spillover benefits, and our relatively low R&D spend (even with the ambitious 2% GDP goal).

However, we see great (and as yet unrealised) potential in developing a world-leading RSI system that celebrates and invests in western and mātauranga Māori research, and is delivered through a te Tiriti-based approach that is genuinely empowering and accountable.

Whāia ngā pae o te māramatanga

Ko te pae tawhiti, whāia kia tata

Ko te pae tata, whakamaua kia tina

E puta ai ki te whaiao, ki te ao mārama!

Search in the innermost recesses of the intellect

To seek new knowledge as yet unexplored

As the past is purchased by the present

And the future is the goal of tomorrow!